Important Advances in Clinical Medicine

Epitomes of Progress—Industrial Medicine and Surgery

The Scientific Board of the California Medical Association presents the following inventory of items of progress in Industrial Medicine and Surgery. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in Industrial Medicine and Surgery which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Industrial Medicine and Surgery of the California Medical Association and the summaries were prepared under its direction.

Reprint requests to: Division of Scientific and Educational Activities, California Medical Association, 731 Market St., San Francisco, CA 94103

Fiberglass—Not Carcinogenic

FIBROUS GLASS has been used in the economy for decades—in homes, in transportation and in industry. Because of the established relationship between asbestos and disabling lung disease, mesothelioma and carcinoma of the lung, substitutes have been sought for typical asbestos applications. Fiberglass has replaced the naturally occurring material in shipboard use, serving as an insulating material on heat-generating and heat-carrying systems. In some instances, such as in gaskets used with extremely high-pressure, high-temperature vessels it has not been possible to use fiberglass as a substitute for asbestos because it cannot withstand the temperatures encountered.

Some investigative opinion has hypothesized that because it is fibrous, glass in this form may be an inhaled human carcinogen. Contemporary analysis of work done substantiates the classification of this material as inert. Evidence of fibrous glass causing human occupational cancer is minimal, and is heavily outweighed by the evidence against it. Current opinion is that fiberglass is a substance with no long-term occupational toxicity or public health hazard in humans, in spite of fears expressed by some.

Glass as a fiber remains solely a short-term mechanical irritant of the skin, and as a rare invader of the skin or pharynx, it causes a typical foreign-body reaction.

In spite of labor-management agreements allowing higher pay to those in industry who work with fiberglass, no solid evidence points to its role as a carcinogen or inciter of chronic pulmonary disease.

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REFERENCES

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Gross P: The biologic categorization of inhaled fiber glass dust. Arch Environ Health 31:101-107, Mar-Apr 1976